

On the Progress of the Museum and Palæontological Work of the Second Geological Survey of Pennsylvania, for the year 1875.

BY CHARLES E. HALL.

(Read before the American Philosophical Society, January 15, 1876.)

The principal collections received from the Assistants and their parties have generally been to demonstrate the sections made by them in their particular districts.

The following collections of fossils have been made :

A series of specimens representing a section from Bellefonte, Centre County, to the Allegheny Mountain, including specimens from the Limestone of II up to the Coal Measures. Number of specimens 165. A collection of bituminous and cannel coals, also cokes. By Mr. F. Platt.

A series of specimens representing the horizons of the Mountain and Oil sands with their included measures and fossils from Venango, Warren, Foster and Crawford Counties. By Mr. J. F. Carll.

Specimens from Mifflin County, representing the Logan and Lewistown Sections;—from Graham's, Snyder's and McKees' fossil-ore openings;—McVeytown Section, including Ross's, McCoy's and Dull and Brady's Ore Banks (*Marcellus hematite*);—Mt. Union Section. Number of specimens 747. By J. H. Dewees.

Specimens from the South Mountain district, including some fossils. By Prof. Fredk. Prime, Jr.

Specimens of sandstone with *Scolithus linearis*, from Franklin County. By Prof. P. Frazer, Jr.

Collection of Coal Plants from Washington and Green Counties. By Prof. Stevenson and J. C. White.

Collection of Fossils from the Chemung and Catskill, with section through a portion of the Chemung, Tioga County. By A. Sherwood.

Collection of Fossils from the Hamilton Group at Marshall's Falls, Monroe County. By H. Martyn Chance.

Specimens representing a section from the Limestone of II at Orbisonia to the Coal Measures of Broadtop Mountain, Huntingdon County. Number of specimens 350. By C. E. Billin and C. A. Ashburner.

Besides these there have been special palæontological collections made at the following localities during the past summer :

From the Carboniferous in Westmoreland County, and in Washington and Greene Counties.

From the Catskill, in Tioga County.

From the Chemung group, from eight localities in Tioga County.

From the Hamilton group at Marshall's Falls and vicinity, in Monroe

County; at Orbisonia and vicinity in Huntingdon County; and at Bell's Mills in Blair County.

From the Oriskany Sandstone at Orbisonia and vicinity.

From the Lower Helderberg, at Orbisonia and vicinity, and at Mansing's Quarry, Carbon County.

From the Clinton Group, at McKee's ore bank, Mifflin County; at Matilda Furnace, Mifflin County; at Orbisonia, in Huntingdon County; at Bell's Mills, in Blair County; and at Hollidaysburg, in Blair County.

From the Oneida Conglomerate at Port Clinton, Schuylkill County.

From the Utica Slate and Hudson River group; at Bellefonte, Centre County; near Henrietta, Bedford County; at Henrietta, Blair County.

From the Trenton Limestone; in the Kischicoquillas Valley, Mifflin County; at Bellefonte, in Centre County.

From the horizon below the Trenton; at Reedsville, Kischicoquillas Valley, Mifflin County; from near Bellefonte, Centre County; and from near Martinsburg, Blair County.

The following list of genera and species shows the result of the season's work. I have also included those mentioned by Prof. H. D. Rogers in the First Survey, many of which I have been able to recognize in our limited collection. All the species, except those of the Chemung have been collected during the past summer.

UPPER CHEMUNG (*and Waverly*).

Actinoerinus,	Orthoceras,
Aristozoa,	Platyceras,
Bellerophon,	"
Carina hamiltonæ,	Productella boydii
Cyrtina hamiltonensis,	" costatula,
Cystids,	" striatula,
Discina newberryi,	Rhynchonella contracta,
Dithyrocaris,	Spirifer alta,
Euripterus,	" disjuncta,
Fenestella,	Streptorynchus chemungensis.
Lepidechinus,	
Lingula delia,	
Modiomorpha alta.	

These specimens are from Warren and Venango Counties, from J. F. Carll, and F. A. Randall.

CHEMUNG. (*Vergent, VIII.*)

Athyris angelica,	Productella lachrymosa var. stigmata,
" polita,	" striatula,
Atrypa spinosa,	Rhynchonella orbicularis,
Discina newberryi,	Spirifer disjuncta,*
Grammysia,	Streptorynchus chemungensis,*

* Those marked * are mentioned by Rogers.

Modiomorpha	Strophodonta cayuta,
Orthis impressa,	“ concava,
Productella boydii,	“ perplana,

The above are from Tioga County.

HAMILTON GROUP. (*Cadent*, VIII.)

Aviculopecten princeps,	Modiolopsis modiomorpha,
Athyris spiriferoides,*	Lingula ligea,
Atrypa reticularis,	Phacops bufo,*
Ambocoëlia umbronata,	Rensselæria? johanni,
Bellerophon,	Rynconella dotis,
Chonetes mucronatus,	Spirifer fimbriata,
“ coronata,	“ granulifera,*
Cryptonella planirostra,	“ medialis,*
Cimitaria recurva,	“ mucronatus,*
Discina grandis,	“ sculptilis,
“ newberryi,	Strophodonta concava,
Dalmania,	“ rhomboidalis,
Fenestella,*	Trepidoleptus carinatus,
Grammysia,	Tentaculites.
Heliophyllum halli,	

All the above are from Marshall's Falls, Monroe County, Pa.

Rogers, p. 827, gives the following, also:

Atrypa aspera,	Strophodonta demissa,
Spirifer congesta,	Trematospira hirsuta,
Strophodonta perplana,	

ORISKANY SANDSTONE. (*Meridian*, VIII.)

Cyrtoceras expansus,	Pterinea texilis,
Dalmania micrurus,	Rensselæria marylandica,
Etonia peculiaris,	“ ovalis,
Megambonia lamellosa,	“ ovoides,*
Orthis hipparionyx,*	Spirifer arenosus,*
Platyceras ventricosa,	“ arrectus.

All these are from the vicinity of Orbisonia.

LOWER HELDERBERG. (*Pre-Meridian*, VI.)

Acevalaria,	Merista lævis,*
Alveolites minima,	Orthis oblata,
Alveolites,	Pentamerus galeatus,*
Artylospongia inornata,	Rhynconella formosa,

* Those marked * are mentioned by Rogers.

Artylospongia,	Stromatopora,
Atrypa reticularis,	"
Aulopora,	Trematospira formosa,
Conophyllum,	Zaphrentis.
Merista arcuata,	

All the above are from Aughwick Valley, near Orbisonia.

Rogers, p. 825, gives the following, also :

Etonia peculiaris,	Spirifer macropleurus,
Platystoma,	" sulcatus,
Rhynconella nobilis,	Strophodonta punctulifera.

NIAGARA, WATERLIME, AND ONONDAGA, OR SALINA. (*Scalant, VI.*)

Rogers, p 824, gives the following:

Bevrichia pennsylvanica,	Tentaculites ornatus.
Leperditia alta,	

CLINTON GROUP. (*Surgent, V.*)

Atrypa reticularis,*	Ferguson and Aughwick valley.
Beyrichia lata,	" " " "
Buthotreps gracilis,*	" " " "
Dalmania limulurus,	" " " "
Homalonotus delphinocephalus,	" " " "
Illænus barrienis,	Ferguson valley, Mifflin county.
Merista intermedia,*	Bell's Mills, Blair county.
Modiolopsis subearinatus,	Ferguson valley.
Orbicula,	Bell's Mills.
Orthis elegantula,*	Ferguson and Aughwick valley.
Orthonota curta,	" valley.
Platystoma niagarensis,	" and Aughwick valley.
Pterinea emacerata,	" " " "
Pterinea rhomboidea,	" valley
Rhynconella neglecta,	" and Aughwick valley
" robusta,	" valley.
Spirifer radiatus,	Bell's Mills.
Strophomena rhomboidalis,*	Ferguson and Aughwick valley.
" subplana,*	" valley.
Strophodonta prisca,	" "

ONEIDA CONGLOMERATE AND MEDINA SANDSTONE. (*Levant, IV.*)

Arthropycus harlani.*	Mifflin and Schuylkill Counties.
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Rogers, p. 822, gives the following, also:

Bucania trilobatus,	Lingula cuneata.
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* Those marked * are mentioned by Rogers.

UTICA SLATE AND HUDSON RIVER. (*Matinal, III.*)

Chætetes lycoperdon,	Canoe valley.
Glyptocrinus decadactylus,*	“ “
Graptolithus,	“ “
Strophomena,	“ “
Triarthrus beekii,*	Nittany valley.

Rogers, p. 818, gives the following, also :

Agnostus lobatus,	Lingula quadrata,
Ambonychia bellistriata,	Modiolopsis modiolaris,
“ radiata,	Murchisonia gracilis,
Avicula insueta,	Orbicula,
Bellerophon bilobatus,	Ormoceras crebriceptum,
Conularia trentonensis,	Orthis lynx,
Cyrtolites ornatus,	Orthoceras vertebrale,
Endoceras proteiforme,	Pleurotomaria bilix,
Graptolithus pristis,	“ subconica,
Heterocrinus,	Rhynconella increbescens,
Lingula curta,	Stictopora acuta.

TRENTON LIMESTONE. (*Matinal, II.*)

Calymene senaria, ...	Nittany valley.
Chætetes lycoperdon,*	“ and Kischicoquillas valley, and Northampton county.
Cryptoceras trentonensis, ...	Nittany valley.
Dalmania gigas,*	“ “
Eschaporra recta, ...	Kischicoquillas valley.
Leptæna sericea,*	“ and Nittany valley.
Lingula riciniformis, ...	Nittany valley.
Orthis testudinaria,*	Nittany and Kischicoquillas valley.
“ tricinaria, ...	“ valley.
“ pectinella,*	Northampton county.
Stictopora elegantula, ...	Kischicoquillas valley.
Strophomena alternata,*	Nittany and Kischicoquillas valley.
“ deltoidea, ...	Nittany valley.
Trinucleus concentricus,*	“ and Kischicoquillas valley.

BLACK RIVER LIMESTONE. (*Matinal, II.*)

Chætetes lycoperdon, ...	Canoe valley.
Gonioceras anceps, ...	“ “
Murchisonia angustata, ...	Kischicoquillas valley.

* Those marked * are mentioned by Rogers.

Orthoceras multicameratum,*.....Canoe valley.
Pleurotomaria umbilicata,*..... “ “

Rogers, (p. 817) mentions the following, not as yet observed :

<i>Euomphalus unguatus</i> ,	<i>Ophileta levata</i> ,
<i>Maclurea matutina</i> ,	<i>Pleurotomaria nucleolata</i> ,
“ magna,	<i>Pleurotomaria turgida</i> ,
<i>Murchisonia bicincta</i> ,	<i>Retapora staminea</i> ,
<i>Leperditia ovata</i> ,	“ striata,
<i>Orthoceras tenuifillum</i> ,	<i>Rhynconella plicifera</i> .

CHAZY LIMESTONE. (*Matinal*, II.)

<i>Asaphus canalis</i> ,*.....	Kischicoquillas valley.
“ marginalis,.....	“ “
<i>Orthis costalis</i> ,.....	“ “
<i>Orthoceras</i> ,.....	“ “
<i>Strophomena incrassata</i> ,*.....	“ “

LOWER LIMESTONES. CALCIFEROUS. (*Auroral*, II.)

<i>Asaphus</i> ,.....	Nittany valley.
<i>Euomphalus</i> ,.....	Canoe valley.
<i>Illæus</i> ,.....	Nittany valley.

POTSDAM SANDSTONE. (*Primal*, I.)

<i>Scolithus linearis</i> ,.....	Lehigh and Franklin counties.
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In the above list no mention is made of the organic animal remains of the Coal Measures, no collections in these having been as yet systematically made. Those observed by Prof. J. J. Stevenson in Washington and Greene Counties will be recorded in his forthcoming report of 1875.

An important collection recently sent in by Mr. Carl has not yet been sufficiently studied to be included in the present notice.

* Those marked * are mentioned by Rogers.